Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Currently amended) The bicycle as claimed in claim [[1]]16, in which said first communication interface comprises a transceiver.

3. (Previously presented) The bicycle as claimed in claim 2, in which said first communication interface is a short-range, contactless communication interface.

4. (Currently amended) The bicycle as claimed in claim [[1]]16, in which the control system is ~~designed~~configured to:

- detect a fault in the operation of said functional element, and
- generate status information characteristic of said fault and communicate this status information to the first communication interface for transmission to said infrastructure.

5. (Currently amended) The bicycle as claimed in claim [[1]]11, comprising a main rear lighting circuit comprising a first rear lamp, the control system being ~~designed~~configured to:

- control said main rear lighting circuit, and
- detect a failure in said main rear lighting circuit.

6. (Previously presented) The bicycle as claimed in claim 5, in which the main rear lighting circuit comprises, in series, a current amplifier, a light-emitting diode, and a current detector.

7. (Currently amended) The bicycle as claimed in claim 5, comprising a secondary rear lighting circuit independent of the main rear lighting circuit, said secondary rear lighting circuit comprising a second rear lamp, and in which the control system is ~~designed~~configured to control the secondary rear lighting circuit by making it operate when a failure has been detected in the main rear lighting circuit.

8. (Currently amended) The bicycle as claimed in claim 5, comprising at least one brake and a secondary rear lighting circuit independent of the main rear lighting circuit, said secondary rear lighting circuit comprising a second rear lamp, the control system being ~~designed~~configured to:

- detect the actuation of the brake, and
- control the secondary rear lighting circuit by making it operate when the actuation of the brake has been detected.

9. (Previously presented) The bicycle as claimed in claim 7, in which the secondary rear lighting circuit comprises, in series, a current amplifier, a light-emitting diode, and a current detector.

10. (Currently amended) [[The]]A bicycle ~~as claimed in claim 1~~, comprising:

an on-board control system;

a first communication interface electrically linked to the control system;

at least one functional element, wherein said control system is designed to control the state of the functional element and communicate to a fixed infrastructure, via the first communication interface, status information concerning the state of said functional element; and

at least one brake and a dynamo, and in which the control system comprises a memory and is ~~designed~~configured to:

- detect an actuation of the brake,
- measure an electrical intensity of a current generated by the dynamo,

- write to the memory status information characteristic of a failure of the brake when the control system detects the actuation of said brake without detecting a reduction in said electrical intensity,
- transmit said status information characteristic of a failure of the brake to the first communication interface.

11. (Currently amended) [[The]]A bicycle ~~as claimed in in claim 1~~, comprising:

an on-board control system;

a first communication interface electrically linked to the control system;

at least one functional element, wherein said control system is designed to control the state of the functional element and communicate to a fixed infrastructure, via the first communication interface, status information concerning the state of said functional element; and

two independent front lighting circuits, each comprising at least one front lamp, and in which the control system is ~~designed~~configured to:

- supply current, at mid-power, to each front lighting circuit,
- detect a failure in any one of the front lighting circuits, and
- supply one of the front lighting circuits with current, at full power, when a failure has been detected in the other circuit.

12. (Previously presented) The bicycle as claimed in claim 11, in which each front lighting circuit comprises, in series, a current amplifier, at least one light-emitting diode, and a current detector.

13. (Currently amended) [[The]]A bicycle ~~as claimed in claim 1~~, comprising:

an on-board control system;

a first communication interface electrically linked to the control system;

at least one functional element, wherein said control system is designed to control the state of the functional element and communicate to a fixed infrastructure, via the first communication interface, status information concerning the state of said functional element; and

- at least one front lighting circuit comprising at least one front lamp,
- at least one rear lighting circuit comprising a first rear lamp,
- a dynamo,
- a battery electrically linked to the dynamo to be recharged by said dynamo and at least partly supplying the front and rear lighting circuits,

in which the control system is ~~designed~~configured to:

- control the front and rear lighting circuits,
- measure the battery charge,
- reduce an electrical intensity supplying the front lighting circuits when the measured charge is less than a predetermined minimum value.

14. (Currently amended) The bicycle as claimed in claim [[1]]16, comprising:

- at least one front lighting circuit comprising at least one front lamp,
- at least one rear lighting circuit comprising a first rear lamp,
- a dynamo,
- a battery electrically linked to the dynamo to be recharged by said dynamo and at least partly supplying the front and rear lighting circuits,

in which the control system comprises a clock and is ~~designed~~configured to:

- control the front and rear lighting circuits,
- detect the operation of the dynamo,
- cut said front and rear lighting circuits when a time interval of predetermined duration has elapsed after the dynamo has stopped operating.

15. (Cancelled)

16. (Currently amended) [[The]]A bicycle~~as claimed in claim 15~~, comprising:

an on-board control system;

a first communication interface electrically linked to the control system;

at least one functional element, wherein said control system is designed to control the state of the functional element and communicate to a fixed infrastructure, via the first communication interface, status information concerning the state of said functional element, and wherein the control system further includes a memory and is designed to:

- receive an identification code via the first communication interface,
- write said identification code into the memory,
- detect an operation of the bicycle,
- if the bicycle is operating, compare the value of the identification code with at least one predetermined value, and
- depending on this comparison, initiate or not initiate an alarm reaction, in which the control system is ~~designed~~configured to initiate the alarm reaction when the value of the identification code corresponds to said predetermined value.

17. (Currently amended) The bicycle as claimed in claim [[1]]16, in which the control system comprises a clock and is ~~designed~~configured to:

- detect an operation of the bicycle,
- after a predetermined period of operation of the bicycle, initiate an alarm reaction.

18. (Currently amended) The bicycle as claimed in claim [[15]]16, comprising at least one lighting circuit which comprises at least one lamp, in which the control system is ~~designed~~configured to intermittently control the lighting circuit as an alarm reaction.

19. (Currently amended) The bicycle as claimed in claim [[15]]16, comprising a speaker controlled by the control system, and in which the control system is ~~designed~~configured to have a sound signal sent to this speaker as an alarm reaction.

20. (Currently amended) The bicycle as claimed in claim [[15]]16, in which the control system is ~~designed~~configured to detect a movement of the bicycle and to determine that the bicycle is operating when a movement is detected.

21. (Currently amended) The bicycle as claimed in claim [[1]]16, which can be locked on a fixed terminal, in which the control system is ~~designed~~configured to:

- detect locking of the bicycle on the fixed terminal,
- have an acknowledgement signal sent when the locking of the bicycle on the terminal has been detected.

22. (Currently amended) The bicycle as claimed in claim 21, comprising at least one lighting circuit controlled by the control system, and said control system is ~~designed~~configured to have said lighting circuit operate intermittently for a limited period as an acknowledgement signal.

23. (Currently Amended) An automatic bicycle rental system comprising at least one bicycle as recited by claim 16, comprising ~~an on board control system, a first communication interface electrically linked to the control system, and at least one functional element,~~

~~wherein said control system is designed to control the state of the functional element, and communicate to a fixed infrastructure via the first communication interface, status information concerning the state of said functional element;~~

~~and an~~the infrastructure ~~designed~~configured to receive said status information.

24. (Currently amended) The automatic system as claimed in claim 23, comprising a plurality of bicycles and in which said infrastructure comprises:

- a plurality of storage stations ~~designed~~configured to receive on each at least one bicycle for storage purposes,

- and a plurality of short-range second communication interfaces ~~designed~~configured to communicate with said first communication interfaces of the bicycles, each second communication interface of the infrastructure being associated with at least one storage station and disposed in the immediate vicinity of said storage station.

25. (Previously presented) The automatic system as claimed in claim 24, in which each storage station comprises a fixed terminal.

26. (Previously presented) The automatic system as claimed in claim 25, in which the fixed terminal comprises one of said second communication interfaces.

27. (Previously presented) The automatic system as claimed in claim 24, in which said second communication interface is a contactless communication interface comprising a transceiver.

28. (Currently Amended) The automatic system as claimed in claim [[23]]24, in which the infrastructure also comprises at least one central station, centralizing said status information received by all the second communication interfaces.